

stantially increase the aggregate health of Medicare beneficiaries while not increasing Medicare spending. The reallocation resulted in a greater proportion of resources directed towards diagnostics tests, more prevalent diseases, and oncology.

MD2

PRESCRIPTION DRUG COST AND USE IN THE MEDICARE PART D POPULATION - USES OF A NEW LIMITED DATA SET

Powers CA¹, Varghese A¹, Hsu VD², O'Donnell J³, Schneider K³

¹Centers for Medicare & Medicaid Services (CMS), Baltimore, MD, USA, ²Buccaneer, A Vangent Company, Owings Mills, MD, USA, ³Buccaneer, A Vangent Company, West Des Moines, IA, USA

OBJECTIVES: While Medicare Part D research identifiable files have been available to academic researchers for some time, a new limited data set (LDS) containing Part D drug utilization and cost information is now available to both academic and non-academic researchers. This study was undertaken to demonstrate the versatility of LDS in analyzing drug utilization and cost. **METHODS:** Aged Medicare beneficiaries alive for all of 2008 with 12 months of Part A, B, and D coverage were selected. The average number of prescription drug fills (30-day adjusted) and average costs per member per month (PMPM) were calculated overall, by demographics, and for selected chronic conditions. Specific drug use was also examined for a chronic condition of interest. **RESULTS:** Overall, the average PMPM number of fills was 4.3 and the cost was \$212, beneficiaries took 8.9 distinct medications, and mean cost per fill was \$49.75. Older beneficiaries filled more prescriptions per month (4.9 for ≥ 85 years vs. 3.9 for 65–74 years), but had lower mean costs per fill (\$46.95 for ≥ 85 years vs. \$51.61 for 65–74 years). Females had higher PMPM fills (4.5 vs. 3.9) and costs (\$220 vs. \$198) compared to males. Dual-eligible Medicare and Medicaid beneficiaries had approximately 1.5 times higher PMPM fills and costs compared to beneficiaries without any Part D subsidies. PMPM fills and costs also vary with race. Compared to the overall Medicare cohort, beneficiaries with the selected chronic conditions had higher PMPM fills and costs: diabetes (6.0, \$303), Alzheimer's (6.0, \$358), depression (6.4, \$357), and osteoporosis (4.8, \$261). Patterns of use and cost by demographics differed by condition compared to the overall cohort, except by dual eligible status. **CONCLUSIONS:** As demonstrated, the new Part D LDS data allows researchers to conduct utilization and cost studies using all and subsets of Medicare beneficiaries with selected chronic conditions.

MD3

EVALUATING THE WILLINGNESS-TO-PAY OF MEDICARE BENEFICIARIES FOR PART D PLAN ASSISTANCE

Patel RA, Walberg MP, Na J, Hsiou D, Panchal V, Woelfel JA, Galal SM, Carr-Lopez SM, Chan EK

University of the Pacific, Stockton, CA, USA

OBJECTIVES: Medicare Part D allows each beneficiary the ability to choose and enroll in a privately sponsored Medicare-approved prescription drug plan (PDP). However, with 33 different stand-alone PDPs to choose from in California in 2011 alone, such a choice can be overwhelming. We sought to assist beneficiaries with Part D plan evaluation and quantify their willingness-to-pay (WTP) for such services during the 2011 open enrollment period. **METHODS:** Nine outreach events were held in cities across central/northern California during which 395 beneficiaries were assisted with their Medicare Part D plan. During each session, beneficiary-specific information (e.g., prescription medications) was entered into the Medicare Plan Finder Tool (www.medicare.gov) to help facilitate the intervention. Demographic and plan-specific data, along with the results of the intervention, were collected from each assisted beneficiary. At the conclusion of the session, each beneficiary's WTP was elicited. **RESULTS:** Of the 348 (88.1%) beneficiaries who answered the question, the median (mean) WTP for Part D plan help was \$20 (\$40.04). A significant difference ($p < 0.001$) was found in the WTP of beneficiaries as a function of whether or not they received additional governmental assistance (e.g., Medicaid). The median (mean) WTP of 96 subsidy-recipients was \$0 (\$12.43) versus \$25 (\$51.38) for 247 non-subsidy recipients. WTP was also dependent ($p < 0.01$) on whether or not the beneficiary was enrolled into a new plan during the intervention session. The median (mean) WTP of the 126 beneficiaries that were enrolled into a PDP plan onsite was \$25 (\$57.79) versus \$10 (\$30.00) for the 220 beneficiaries who were not. Finally, beneficiaries' WTP was significantly correlated ($r_s = 0.235$; $p < 0.001$) with the estimated annual cost savings identified during the intervention. **CONCLUSIONS:** Beneficiaries value Medicare Part D plan assistance and the perceived value varies as a function of certain demographic and intervention characteristics.

MD4

EVALUATION OF AN INTERVENTION TO REDUCE POLY-PHARMACY IN MEDICARE PART D

Livengood KB, Harrell T, Abarca J, WellPoint, Indianapolis, IN, USA

OBJECTIVES: The objective of this study was to evaluate the relationship between a physician-based intervention and the reduction in poly-pharmacy for a segment of a national managed care Medicare Part D cohort. **METHODS:** Providers of Medicare Part D members in 2009 were sent a letter if one or more of their patients met the criteria for both medication therapy management (MTM) and poly-pharmacy. The providers were asked to review the member's prescription profile and make appropriate changes based solely on the provider's clinical judgement. Two follow-up quarters were defined for each member in 2009, and two baseline quarters were defined in 2008. From prescription claims, fields were collected allowing the creation of change variables. Changes in claim count, drug (GPI) count, and medication cost were evaluated using feasible generalized least squares and a linear probability model (change in claim and drug count). The intervention cohort was compared to a control cohort, consisting of Medicare Part D members who met poly-pharmacy criteria but not MTM program criteria. **RESULTS:** The analysis re-

vealed a significantly greater reduction of 3.72 claims (second baseline quarter 2008 versus second follow-up quarter 2009, $p < 0.001$) for the intervention. There was a significantly greater reduction of 1.67 drugs (GPI8) for the intervention ($p < 0.001$). Medication costs for the intervention were decreased \$204 (ingredient cost, \$149 in amount paid for medications, $p < 0.001$ for both medication costs). The linear probability model showed the intervention was associated with a 4.4%, 6.5%, and 12.9% significantly greater probability of a three to five, six to eight, and a greater than eight, respectively, claim count reduction ($p < 0.001$). The intervention was also associated with a significantly greater probability of drug count reduction ($p < 0.001$). **CONCLUSIONS:** The intervention was associated with a statistically significant marginal reduction in claim count, drug count, and medication costs compared to a control Medicare Part D cohort.

PODIUM SESSION III:

EXAMINING THE QALY

QA1

COST-EFFECTIVENESS OF DUTASTERIDE AS A CHEMOPREVENTION IN PROSTATE CANCER: REDUCE WITHIN-TRIAL ANALYSIS

Earnshaw SR¹, Chirila C¹, McDade C¹, Black L², Andriole GL³

¹RTI Health Solutions, Research Triangle Park, NC, USA, ²GlaxoSmithKline, Research Triangle Park, NC, USA, ³Washington University School of Medicine in St. Louis, St. Louis, MO, USA

OBJECTIVES: A within-trial analysis examined the cost-effectiveness of dutasteride as a chemoprevention compared with placebo, by analyzing the resource use incurred by men in Reduction by Dutasteride of Prostate Cancer Events (REDUCE) trial. **METHODS:** REDUCE was a 4-year, randomized, double-blind, placebo-controlled, parallel-group trial to compare the efficacy and safety of dutasteride 0.5 mg daily with placebo for chemoprevention in men at increased risk for prostate cancer. Resource use data was prospectively collected and included drugs, procedures, outpatient visits, and inpatient visits in general and those associated with related conditions such as hematuria, hematospermia, acute urinary retention, urinary tract infection, benign prostatic hyperplasia, and prostate cancer. Unit costs from standard costing sources were applied to resource use incurred during the trial. Quality-adjusted life-years (QALYs) were calculated on the basis of men being healthy and having BPH, prostate cancer, and adverse events. Utilities were obtained from the published literature. Incremental costs per QALY were calculated. Bootstrap analyses, to derive cost-effectiveness acceptability curves, were performed. The analysis was performed from the perspective of a US health care payer. **RESULTS:** Men using dutasteride incurred a mean cost of \$6,610 (including cost of dutasteride) whereas men in the placebo group incurred a mean cost of \$3,177 over the 4-year period of the trial. Men using dutasteride accrued 0.13 more QALYs than men on placebo (3.26 vs. 3.13). As a result, the use of dutasteride as a chemoprevention was cost-effective (incremental cost per QALY $< \$50,000$), with an incremental cost per QALY of \$26,516. The incremental cost per prostate cancer avoided was \$19. **CONCLUSIONS:** Using dutasteride as a chemoprevention for prostate cancer in men at increased risk, as seen in the REDUCE trial, is cost-effective. These cost-effective benefits of chemoprevention are realizable in a period of time as short as 4 years.

QA2

CROSS-WALKING CANCER-SPECIFIC INSTRUMENTS TO THE EQ-5D AND SF-6D

Teckle P¹, Peacock S¹, van der Hoek K¹, Chia S², Melosky B², Gelmon K²

¹Canadian Centre for Applied Research in Cancer Control (ARCC), Vancouver, BC, Canada, ²Medical Oncology, British Columbia Cancer Agency, Vancouver, BC, Canada

OBJECTIVES: To help facilitate economic evaluations of interventions for treating cancer, we estimated utility indices for the two frequently used cancer-specific (FACT-G and EORTC-QLQ-C30) instruments of quality-of-life, by mapping them onto each of the EQ-5D and SF-6D preference-based indices. **METHODS:** A sample of 367 cancer patients from the Vancouver Cancer Centre completed four health-related-quality-of-life questionnaires (EORTC-QLQ-C30/FACT-G/EQ-5D/SF-6D). The sample was randomly divided to provide development ($n = 184$) and cross-validation ($n = 183$) samples. Models of the relationships between the EORTC-QLQ-C30/FACT-G and each of the preference-based indices were estimated using regression analyses. We examined three alternative modeling approaches: ordinary-least-squares (OLS); generalized-linear-modeling (GLM) using a Gaussian distribution and log-link; and censored-least-absolute deviations (CLAD). The performance of the models was assessed in terms of how well the responses to the cancer-specific instruments predicted utilities from each of the EQ-5D/SF-6D instruments. **RESULTS:** The CLAD approach considers the non-normal (left-skew) distribution of the utility scores and their apparent truncation at one. Results from the final models of the three approaches did not differ significantly. Physical, functional and emotional well-being domain-scores of FACT-G significantly predict EQ-5D/SF-6D utility scores. Physical and emotional functioning and pain subscales of the EORTC-QLQ-C30 were significant predictors of the utility scores. Cognitive functioning and insomnia subscales of the EORTC-QLQ-C30 were significantly associated with the EQ-5D, while the social and role functioning, and fatigue were only significant predictors of the SF-6D utility-index. The addition of age, gender, stage of disease, and ethnicity did not lead to significant improvement in the model. The root mean square error (RMSE) for the SF-6D was lower (0.064), suggesting better predictions than for the EQ-5D (0.098). **CONCLUSIONS:** There is potential to estimate EQ-5D/SF-6D utilities using responses from the cancer-specific FACT-G/EORTC-QLQ-C30 measures of quality-of-life, even though the latter were not designed as utility instruments. Our results suggest that it is possible to estimate Quality-Adjusted-Life-Years (QALYs) from studies where only cancer-specific instruments have been administered.